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ABSTRACT

In January 1982, Wytheville Community College (WCC) adopted the English Qualifying Exam (EQE) as a mandatory placement test for all students wishing to enter English 101 or 111 (two first-quarter, college-level courses). Although the EQE proved suitable for placing students and predicting the number of quarters that would be required to complete developmental coursework, many students resented having to take the exam and its administration required a great deal of staff time. A study was conducted to determine if there were data on high school transcripts that would have a higher degree of correlation with English 101 and 111 grades and/or with the number of times required to complete developmental courses than the EQE scores. The Statistical Analysis System was used to determine the degree of correlation of EQE scores; 12th grade English grades; Science Research Associates (SRA) Assessment Survey composite, reading, and language arts scores; and grades received for English 101 and 111 or the number of times required to complete the developmental courses. The study revealed that SRA language arts and composite scores had a higher degree of correlation with English 101 and 111 grades than did EQE scores. Based on the findings, changes were recommended in testing requirements, and cutoff scores for placement in English 101 and 111 were determined for the SRA and EQE. (AYC)

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WYTHEVILLE COMMUNITY COLLEGE
Wytheville, Virginia

A STUDY OF THE CORRELATION OF SELECTED DATA ON HIGH SCHOOL TRANSCRIPTS, ENGLISH QUALIFYING EXAM SCORES, AND SUBSEQUENT FRESHMAN/DEVELOPMENTAL ENGLISH GRADES AT WYTHEVILLE COMMUNITY COLLEGE

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TABLE OF CONTENTS

	PAGE
Statement of the Problem	1
Purpose of the Study	3
Limitations of the Study	3
Significance of the Study	4
Hypotheses	4
Methodology	6
Findings and Conclusions	7
Recommendations	12

LIST OF TABLES

TABLE		PAGE
1	Correlation Coefficient (r) of EQE Scores, Selected Data on High School Transcripts and Grades Received for English 101 and 111	8
2	Correlation Coefficient (r) of EQE Scores, Selected Data on High School Transcripts and the Number of Times Required to Complete English 01 and 08	8
3	Arithmetic Mean ($\bar{X}$) of EQE Scores, Selected Data on High School Transcripts, and Passing Grades Received for English 101	9
4	Arithmetic Mean ($\bar{X}$) of EQE Scores, Selected Data on High School Transcripts, and Passing Grades Received for English 111	9
5	Arithmetic Mean ($\bar{X}$) of EQE Scores, Selected Data on High School Transcripts, and the Number of Times Required to Complete English 01	10
6	Arithmetic Mean ($\bar{X}$) of EQE Scores, Selected Data on High School Transcripts, and the Number of Times Required to Complete English 08	10

A STUDY OF THE CORRELATION OF SELECTED DATA ON HIGH SCHOOL TRANSCRIPTS, ENGLISH QUALIFYING EXAM SCORES, AND SUBSEQUENT FRESHMAN/DEVELOPMENTAL ENGLISH GRADES AT WYTHEVILLE COMMUNITY COLLEGE

STATEMENT OF THE PROBLEM

The primary problem which this study is attempting to solve is to find existing data that can be used to place students in first-quarter English classes where their probability of success will be high. The college offers two first-quarter college-level English courses--English 101 (Communication Skills I) and English 111 (English Composition I). English 101 is primarily for students enrolled in an occupational-technical program and English 111 is for students who intend to transfer to a four-year institution.

WCC has an open admissions policy and enrolls a large number of students who have been out of high school for several years. Consequently, its entering students have a wide range of English skills and many of them are not prepared to enter English 101 or 111. When it is determined that a student is probably not prepared to enter English 101 or 111, he or she is required to take developmental English courses. English 01 (Verbal Studies Laboratory) and English 08 (Reading Improvement) are developmental courses for students who lack preparation in English. These courses are designed to develop basic skills and understandings needed to succeed in college-level courses. They are not offered for college-level credit, are personalized, and may be completed in varying lengths of time.

For a number of years, the college sought an assessment instrument that was satisfactory for evaluating whether or not a student was prepared to enter English 101 and English 111. In January of 1982, WCC adopted the English

Qualifying Exam (Revised 1978), developed by the English faculty of the Annandale Campus of Northern Virginia Community College, as such an instrument and made the exam mandatory for all students wishing to enter English 101 or 111 after the 1982 Spring Quarter. A study conducted by this researcher in March 1983, showed that there was significant correlation between English Qualifying Exam (EQE) scores and grades received in English 101 and 111 by two hundred twenty-seven WCC students during the 1982 Fall Quarter. The findings of that study seemed to indicate that the college had found a suitable instrument for placing students in English 101 and 111. However, the EQE also produced some undesirable results. Many potential students resented having to take the EQE in order to enroll in English classes at WCC, an open admissions community college, when they could enroll at four-year institutions without it. This created a public relations problem with some public school officials, parents, and students. In addition, administering the exam and recording and distributing the scores required a great deal of staff time. Therefore, there is a need to find existing data that is suitable for placing students in English 101 and 111 so that the problems associated with the EQE can be avoided.

A secondary problem which this study attempts to solve is to find existing data that can be used to project the number of quarters that will be required for a student to complete developmental English courses. As previously stated, developmental English courses are personalized and consequently completed in varying lengths of time. Some students require only one quarter to complete these courses while others require two quarters or more (only about 5% require more than two quarters). In order to properly plan instructor workloads for these courses, a suitable instrument that can be used to project the number of quarters each student will require to complete English 01 and 08 is needed.

The aforementioned study which this researcher conducted in March 1983, showed that there was significant correlation between EQE scores and the number of times required to complete developmental English courses. However, the previously mentioned problems related to the EQE suggest that an effort should be made to find existing data that could be used for this purpose in an attempt to avoid the problems encountered with the EQE.

PURPOSE OF THE STUDY

The purpose of this study is to determine if there are data on high school transcripts of WCC students that have a higher degree of correlation with grades received in the first English course and/or the number of times required to complete developmental English courses than EQE scores.

LIMITATIONS OF THE STUDY

The scope of this study is limited to the computation and analysis of two correlations: (1) correlation of EQE scores, twelfth grade English grades, eleventh grade Science Research Associates (SRA) Assessment Survey weighted scores (for the composite, reading, and language arts components) and subsequent grades received for the first English course (English 101 or 111) completed at WCC during the 1982 Fall Quarter; and (2) correlation of EQE scores, twelfth grade English grades, SRA composite, reading, and language arts scores and the number of times required by WCC students to complete developmental English courses (English 01 and 08) during the 1982 Fall Quarter.

A review of a sample of high school transcripts from the schools in the WCC service region revealed that all but a few of the transcripts of recent

graduates entering WCC contained eleventh grade SRA scores, and all contained twelfth grade English grades. A perusal of the SRA score report caused this researcher to conclude that the weighted scores for the composite, reading, and language arts components would more likely be correlated with performance in college English than would other available data. Availability and likelihood of correlation were the factors which led to the selection of these data as independent variables for this study.

SIGNIFICANCE OF THE STUDY

The significance of this study is that it could identify existing data that would be suitable for placing students in English 101, 111, and developmental English at WCC and thereby allow the college to avoid the problems which it has encountered with the EQE. In addition, it could identify existing data that would be suitable for projecting the number of quarters that WCC students will require to complete developmental English courses and thereby enable the college to more accurately plan instructor workloads for English classes without having to administer the EQE.

This study could also have implications for other community colleges that are located in areas where the SRA Assessment Survey is regularly administered to eleventh grade students since most community colleges offer the equivalent of English 01, 08, 101, and 111.

HYPOTHESES

The following hypotheses were tested:

1. (Null) There are no data available on high school transcripts of

WCC students which have a higher degree of correlation with grades received for English 101 at WCC than EQE scores.

(Alternate) There are data available on high school transcripts of WCC students which have a higher degree of correlation with grades received for English 101 at WCC than EQE scores.

2. (Null) There are no data available on high school transcripts of WCC students which have a higher degree of correlation with grades received for English 111 at WCC than EQE scores.

(Alternate) There are data available on high school transcripts of WCC students which have a higher degree of correlation with grades received for English 111 at WCC than EQE scores.

3. (Null) There are no data available on high school transcripts of WCC students which have a higher degree of correlation with the number of times required to complete English 01 than EQE scores.

(Alternate) There are data available on high school transcripts of WCC students which have a higher degree of correlation with the number of times required to complete English 01 than EQE scores.

4. (Null) There are no data available on high school transcripts of WCC students which have a higher degree of correlation with the number of times required to complete English 08 than EQE scores.

(Alternate) There are data available on high school transcripts of WCC students which have a higher degree of correlation with the number of times required to complete English 08 than EQE scores.

METHODOLOGY

The Statistical Analysis System (SAS) was used to compute Pearson's (product-moment) correlation coefficient (r) and thereby show the degree of correlation of EQE scores, twelfth grade English grades, SRA composite scores, SRA reading scores, SRA language arts scores and grades received for the English 101 and 111 at WCC. The same process was also used to show the degree of correlation of the above scores/grades and the number of times required to complete English 01 and 08.

SAS was also used to compute the arithmetic mean ($\bar{X}$) of EQE scores, SRA scores, and twelfth grade English grades for students earning each of the passing grades awarded for English 101 and 111 at the end of the 1982 Fall Quarter in order to help identify appropriate cutoff scores for placing students in these courses. The same procedure was used to compute the mean of the above data for students who completed English 01 and/or 08 during the 1982 Fall Quarter and for those who will require more than one quarter to complete these courses.

The independent variables for both computations of the correlation coefficient were EQE scores, twelfth grade English grades, SRA composite scores, SRA reading scores, and SRA language arts scores. The dependent variable for the first computation was the grades received for English 101 and 111 at WCC during the 1982 Fall Quarter. The dependent variable for the second computation was the number of times required to complete English 01 and/or 08.

In order to compute the correlation coefficient of EQE scores, SRA scores, and English grades, it was necessary to convert letter (alphabetic) grades to numeric values. Therefore, an "A" grade was given the value of four (4), a

"B" grade was given the value of three (3), a "C" grade was given the value of two (2), a "D" grade was given the value of one (1), and "F" grades were converted to zeros (0). In the computation of the correlation coefficient of EQE scores, SRA scores, twelfth grade English grades, and the number of times required to complete English 01 and 08, the following procedure was used. If a student received a grade of "S" (satisfactory completion) at the end of the 1982 Fall Quarter, he or she was assigned a value of one (1). This meant that the student completed the course in one quarter. If a student received a grade of "R" (making progress but needs to reenroll), "U" (unsatisfactory progress), or "W" (withdrawal), he or she was assigned a value of two (2). This meant that it would take the student two (or more) quarters to complete the course (only about 5% of the enrollees require more than two quarters to complete developmental courses). The numeric values of one (1) and two (2) were then used in the computation formula along with the previously described independent variables.

The data included as independent variables were collected by WCC Admissions Office personnel from high school transcripts and EQE score sheets and then entered in user fields of each student's record on the Virginia Community College System's Student Information Package (SIP) file by data processing personnel. A locally written computer program was used to extract data from the SIP file, convert data from the grade file, and feed selected data into the SAS software program.

FINDINGS AND CONCLUSIONS

The findings of this study are presented in Tables 1 through 6 on pages 8 - 10.

TABLE 1. Correlation Coefficient (r) of EQE Scores, Selected Data on High School Transcripts and the Grades Received for English 101 and 111.

	r for EQE Scores	N	r for High School English Grades	N	r for SRA Composite Scores	N	r for SRA Reading Scores	N	r for SRA Lang. Arts Scores	N
English 101	.44444	86	.52242	73	.53402	53	.43877	53	.57531	53
English 111	.44398	141	.39340	122	.45480	91	.30238	91	.45569	91

TABLE 2. Correlation Coefficient (r) of EQE Scores, Selected Data on High School Transcripts and the Number of Times Required to Complete English 01 and 08.

	r for EQE Scores	N	r for High School English Grades	N	r for SRA Composite Scores	N	r for SRA Reading Scores	N	r for SRA Lang. Arts Scores	N
English 01	-.33769	60	-.41998	44	-.52225	32	-.51879	34	-.29725	34
English 08	-.37701	55	-.28592	40	-.50266	28	-.46805	29	-.33538	29

TABLE 3. ARITHMETIC MEAN ($\bar{X}$) OF EQE SCORES, SELECTED DATA ON HIGH SCHOOL TRANSCRIPTS, AND PASSING GRADES RECEIVED FOR ENGLISH 101

PASSING GRADES	$\bar{X}$ FOR EQE SCORES	N	$\bar{X}$ FOR HIGH SCHOOL ENGLISH GRADES	N	$\bar{X}$ FOR SRA COMPOSITE SCORES	N	$\bar{X}$ FOR SRA READING SCORES	N	$\bar{X}$ FOR SRA LANG. ARTS SCORES	N
A	33	5	3.000	5	599	1	466	1	473	1
B	33	28	3.000	25	548	19	439	19	464	19
C	28	35	2.483	29	491	20	411	20	406	20
D	27	13	1.667	9	482	8	403	8	379	8

TABLE 4. ARITHMETIC MEAN ($\bar{X}$) OF EQE SCORES, SELECTED DATA ON HIGH SCHOOL TRANSCRIPTS, AND PASSING GRADES RECEIVED FOR ENGLISH 111

PASSING GRADES	$\bar{X}$ FOR EQE SCORES	N	$\bar{X}$ FOR HIGH SCHOOL ENGLISH GRADES	N	$\bar{X}$ FOR SRA COMPOSITE SCORES	N	$\bar{X}$ FOR SRA READING SCORES	N	$\bar{X}$ FOR SRA LANG. ARTS SCORES	N
A	38	14	3.500	10	582	7	452	7	489	7
B	34	47	2.854	41	565	29	561	29	452	29
C	30	65	2.379	58	523	44	429	44	420	44
D	27	11	2.273	11	502	10	410	10	398	10

TABLE 5. ARITHMETIC MEAN ($\bar{X}$) OF EQE SCORES, SELECTED DATA ON HIGH SCHOOL TRANSCRIPTS, AND THE NUMBER OF TIMES REQUIRED TO COMPLETE ENGLISH 01

QUARTERS REQUIRED TO COMPLETE COURSE	$\bar{X}$ FOR EQE SCORES	N	$\bar{X}$ FOR HIGH SCHOOL ENGLISH GRADES	N	$\bar{X}$ FOR SRA COMPOSITE SCORES	N	$\bar{X}$ FOR SRA READING SCORES	N	$\bar{X}$ FOR SRA LANG. ARTS SCORES	N
1	22	35	2.200	25	479	17	397	18	386	18
2	20	23	1.563	16	407	13	353	13	359	13

TABLE 6. ARITHMETIC MEAN ($\bar{X}$) OF EQE SCORES, SELECTED DATA ON HIGH SCHOOL TRANSCRIPTS, AND THE NUMBER OF TIMES REQUIRED TO COMPLETE ENGLISH 08

QUARTERS REQUIRED TO COMPLETE COURSE	$\bar{X}$ FOR EQE SCORES	N	$\bar{X}$ FOR HIGH SCHOOL ENGLISH GRADES	N	$\bar{X}$ FOR SRA COMPOSITE SCORES	N	$\bar{X}$ FOR SRA READING SCORES	N	$\bar{X}$ FOR SRA LANG. ARTS SCORES	N
1	22	37	2.179	28	482	19	401	21	386	21
2	19	20	1.733	15	417	11	361	11	355	11

Table 1 shows that SRA language arts scores, SRA composite scores, and twelfth grade English grades have a higher degree of correlation with grades received for English 101 than EQE scores and that SRA language arts scores and SRA composite scores have a higher degree of correlation with grades received for English 111 than EQE scores. Therefore, null hypotheses 1 and 2 are rejected and the corresponding alternate hypotheses are accepted.

Table 2 shows that SRA composite scores, SRA reading scores, and twelfth grade English grades have a higher degree of correlation with the number of times required to complete English 01 than EQE scores and that SRA composite scores and SRA reading scores have a higher degree of correlation with the number of times required to complete English 08 than EQE scores. Therefore, null hypotheses 3 and 4 are rejected and the corresponding alternate hypotheses are accepted.

Tables 3 and 4 show the mean scores of the independent variables of each of the passing grades awarded for English 101 and 111 for the 1982 Fall Quarter. Since SRA language arts scores have the highest degree of correlation with grades received for English 101 and 111 (see Table 1), then SRA language arts scores are the best available predictor of performance in these courses. If we accept the premise that the students who completed English 101 and 111 are typical of those who will enroll in these courses, and that a grade of "C" (or higher) is indicative of success, then the mean SRA language arts scores for those who made "C" should be appropriate cutoff scores for placing students in English courses where they have a high probability of success.

Tables 5 and 6 show the mean scores of the independent variables for those who required only one quarter to complete English 01 and/or 08 and for those who required 2 or more quarters to complete these courses. Since SRA

composite scores have the highest degree of correlation with the number of times required to complete English 01 and 08 (see Table 2), then SRA composite scores are the best available predictor of the number of quarters that will be required to complete these courses. If we accept the premise that the students who completed English 01 and 08 during the 1982 Fall Quarter are typical of those who will enroll in these courses, then the mean SRA composite score for those who completed these courses in one quarter should be appropriate cutoff scores for predicting whether or not students will be able to complete these courses in one quarter.

RECOMMENDATIONS

In view of the findings of this study and the previous study by this researcher on correlation of EQE scores and grades received for English 101 and English 111, the following recommendations seem appropriate:

1. That the EQE not be required of students who have eleventh grade SRA scores that are no more than four years old.
2. That placement of WCC students in English 101 and 111 be based on eleventh grade SRA language arts scores in instances where they are available and no more than four years old.
3. That a weighted score of 406 (on SRA language arts) be established as the cutoff score for placement in English 101. Students scoring lower than 406 should be required to enroll in developmental English.
4. That a weighted score of 420 (on SRA language arts) be established as the cutoff score for placement in English 111. Students scoring lower than 420 should be required to enroll in developmental English.

5. That the EQE continue to be required of WCC students wishing to enter English 101 and 111 in instances where their SRA scores are more than four years old or are not available.
6. That the EQE cutoff score for placement in English 101 be raised from 26 to 28. Students scoring lower than 28 should be required to enroll in developmental English.
7. That the EQE cutoff score for placement in English 111 remain at 30. Students scoring lower than 30 should be required to enroll in developmental English.

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